



**Shelmerdines**  
Consulting Engineers

21 April 2010  
DT: 5040

Mirvac  
Level 26  
60 Margaret Street  
SYDNEY NSW 2000

**Attention: Mr Adrian Checchin**

Dear Sir

**BIG W DC AND DICK SMITH DC  
HOXTON PARK NSW  
EXTERIOR LIGHTING AND SIGNAGE**

We refer to the above project, and as required for the Part 3A submission for the site, we provide the following information detailing what the design will be based on for the external lighting to the Big W and Dick Smith Electronics sites and the proposed illuminated signage, based on the current sketch designs and proposed signage locations.

1. The standards that will be used for the exterior lighting designs are:-

AS/NZS 1158.3.1:2005 Lighting for roads and public spaces Part3.1: Pedestrian area  
(Category P) lighting – Performance and design requirements

AS 4282:1997 Control of the obtrusive effects of outdoor lighting

2. The design of the lighting and resultant calculated lighting levels will be determined using the lighting design software program Lumen Micro Designer
3. The external lighting will be broken into four main areas:
- a) Truck dock areas (pedestrians and trucks mix)
  - b) Truck only movement areas (no pedestrians)
  - c) Staff/visitor carpark bay areas (pedestrians and vehicles mix)
  - d) Car entry/exit areas (no pedestrians)
4. The relevant applicable lighting subcategory for each of the above four areas from the Australian Standard AS/NZS 1158.3.1:2005 would be:
- a) Lighting subcategory P6
  - b) Lighting subcategory P11c
  - c) Lighting subcategory P11b
  - d) Lighting subcategory P11c

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**Directors**

P.W. Matthews  
R.W. Butt  
B. Kennedy  
D.A. Taylor  
K.F. Murray

**Associates**

D.J. Powell  
M.R. Lindley

5. The relevant recommended lighting levels from the Australian Standard AS/NZS 1158.3.1:2005 for the four areas is:
  - a) Average horizontal illuminance – 21 lux
  - b) Average horizontal illuminance – 3.5 lux
  - c) Average horizontal illuminance – 7 lux
  - d) Average horizontal illuminance – 3.5 lux
6. The Australian Standard AS 4282:1997 recommends the maximum illuminance in the vertical plane at any nearby residential properties from a commercial area as:-
  - a) Pre-curfew hours – 25 lux
  - b) Curfewed hours – 4 lux

As the residential properties in the area adjacent to the site are a distance away from the proposed buildings, the lighting level requirement for the obtrusive effects of outdoor lighting listed above will be complied to.

7. The light fittings proposed for the site are generally metal halide or LED pole mounted or building mounted luminaires complete with symmetrical or asymmetric beams and designed to minimise glare to the trucks and vehicles manoeuvring around the site. LED light fittings are being considered due to being more energy conservative from a sustainability aspect. Details of the proposed luminaires to be used are attached with this report.
8. Building signage is proposed for both the Big W building and the Dick Smith Building. The illuminated signs proposed are illuminated by LED light sources and the estimated brightness of the sign face measured in candela per metre squared is 150-300 cd/m<sup>2</sup>. This level is well below the 2,500 cd level allowable under AS 4287:1997.

Having regard to the proposed external lighting, including signage and relevant Australian Standards to be complied with, Shelmerdines are of the opinion that the proposed development will not generate any adverse light spill exceeding the limits allowable under the relevant standards.

Please find attached the following documents to be referenced with the above information:-

- Sketch design of Big W external lighting (Prepared by Shelmerdines Consulting Engineers)
- Sketch design of Dick Smith external lighting (Prepared by Beca Pty Ltd)
- Sketch layout of proposed illuminated signage
- Catalogue information and photometric data details of the proposed external luminaires

Please do not hesitate to contact the undersigned should you require any further information.


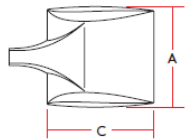
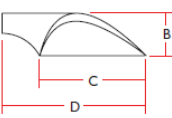



Yours faithfully  
**SHELMERDINES**



David Taylor  
**DIRECTOR**

<b>Project Name</b>	Big W-Distribution Centre-Sydney
<b>Project Number</b>	5040
<b>Luminaire Type</b>	Type "T" 250 Watt Wall Mounted Luminaire
<b>Luminaire Name</b>	Aviator Medium Type III - Wall Mount
<b>Description</b>	Metal Halide Wall Mounted Full Cutoff Medium Area Light
<b>Fitting Size</b>	See Below
<b>Manufacturer</b>	RUUD
<b>Catalogue Number</b>	See Below
<b>Notes</b>	Complete with Area Cutoff Reflector Cat No. AVH30625-MBK

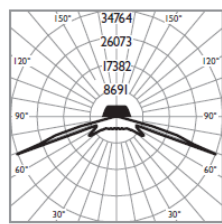

## Pictures & Details

AV	H	4	0	6	40 -	2	P	BZ
<b>Product Family</b>	<b>Lamp Orientation</b>	<b>Optical Systems</b>	<b>Mounting Options</b>	<b>Lamps/ Ballasts</b>	<b>Wattages</b>	<b>Ballast Voltages</b>	<b>Options (Factory Installed)</b>	
AV = Aviator	H = Horizontal	3 = Parking/Roadway (Type III) 4 = Forward Throw (Type IV)	0 = Integrated Arm	4 = Probe Start Metal Halide 5 = High Pressure Sodium 6 = Pulse Start Metal Halide	17 = 175 Watt PSMH/PMH 25 = 250 Watt PSMH/PMH-HP 32 = 320 Watt PSMH 40 = 400 Watt PSMH/PMH-HP <i>(Other wattages available - consult factory)</i>	M = Multi-tap (120/208/240/277V) D = Dual volt (120/277V) T = Tri-volt (120/277/347V) 1 = 120 Volt 2 = 277 Volt 27 = 277 Volt 3 = 208 Volt 4 = 240 Volt 5 = 480 Volt 6 = 347 Volt S0 = 220-240V (50Hz) S2 = 220V (50Hz) S3 = 230V (50Hz) S4 = 240V (50Hz)	F = Fuse P = Photocell -SP = External Photocell (480V) Q = Quartz Standby <i>Note: The F and P options require the selection of a single voltage ballast</i>	
 <p><b>EXTENDED UPSWEEP ARM</b></p>		<p>A = 18.5" (470 mm) B = 7.9" (201 mm) C = 19.6" (498 mm) D = 26.5" (674 mm)</p> 				<p><b>Color Options</b></p> <p>BZ = Bronze BK = Black WH = White PB = Platinum Bronze SV = Silver</p>		 <p><b>HINGED WALL MOUNT BOX</b></p>
								 <p><b>INTEGRATED ARM</b></p>
								 <p><b>EXTENDED ARM</b></p>

**MEDIUM AVIATOR TYPE III HORIZONTAL**

**LEFT:** Candlepower distribution curve of 400W PSMH.

**RIGHT:** Isofootcandle plot of 400W PSMH at 30' (9.1 m) mounting height and 0° vertical tilt. (Plan view)

## Extended Information



SBL-AV1  
BACKLIGHT SHIELD



AVRP-1  
ROUND POLE ADAPTOR

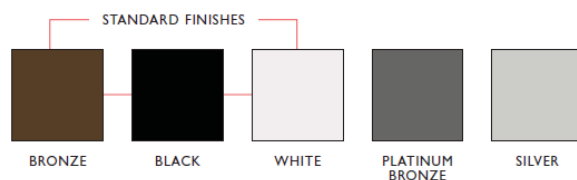


PT-A1  
POST TOP  
TENON ADAPTOR



WM-5  
EXTENDED ARM

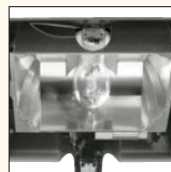
The Aviator's unique Colorfast DeltaGuard™ paint and finish system delivers a wide range of color options for your consideration and is covered by a full 7-year warranty.



**QUICK-CONNECT BALLAST TRAY**  
One-piece, field replaceable electrical ballast tray allows for quick connect and disconnect, easing both installation and maintenance.



**EASY ACCESS HINGE AND LENS**  
The luminaire door is attached to the housing with a patented internal hinge assembly allowing for easy removal of the doorframe, if required. A high temperature silicone gasket seals the optical system from dirt and debris (IP65).




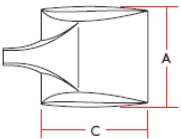
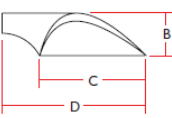



**PREMIUM OPTICS**  
Horizontal lamp with premium reflector materials in a segmented reflector design. This combination delivers excellent streetside efficiency, superior backlight control and greatly improved uniformity demanded by lighting specifiers.



**TOOL-LESS ENTRY**  
Proprietary door-frame latching system allows easy access and servicing of lamp for normal maintenance.

<b>Project Name</b>	Big W-Distribution Centre-Sydney
<b>Project Number</b>	5040
<b>Luminaire Type</b>	Type "U" 320 Watt Wall/Awning Mounted Luminaire
<b>Luminaire Name</b>	Aviator Medium Type IV - Wall Mount
<b>Description</b>	Metal Halide Wall Mounted Full Cutoff Medium Area Light
<b>Fitting Size</b>	See Below
<b>Manufacturer</b>	RUUD
<b>Catalogue Number</b>	See Below
<b>Notes</b>	Complete with Forward Throw Reflector Cat No. AVH40632-MBK

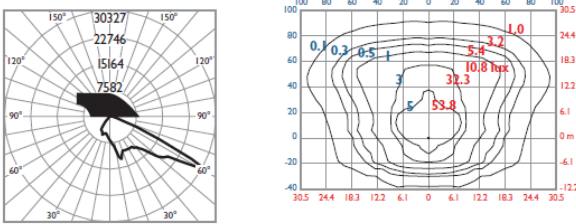
## Pictures & Details

AV	H	4	0	6	40 -	2	P	BZ
<b>Product Family</b>	<b>Lamp Orientation</b>	<b>Optical Systems</b>	<b>Mounting Options</b>	<b>Lamps/Ballasts</b>	<b>Wattages</b>	<b>Ballast Voltages</b>	<b>Options (Factory Installed)</b>	
AV = Aviator	H = Horizontal	3 = Parking/Roadway (Type III) 4 = Forward Throw (Type IV)	0 = Integrated Arm	4 = Probe Start Metal Halide 5 = High Pressure Sodium 6 = Pulse Start Metal Halide	17 = 175 Watt PSMH/PMH 25 = 250 Watt PSMH/PMH-HPS 32 = 320 Watt PSMH 40 = 400 Watt PSMH/PMH-HPS (Other wattages available - consult factory)	M = Multi-tap (120/208/240/277V) D = Dual volt (120/277V) T = Tri-volt (120/277/347V) 1 = 120 Volt 2 = 277 Volt 27 = 277 Volt 3 = 208 Volt 4 = 240 Volt 5 = 480 Volt 6 = 347 Volt 50 = 220-240V (50Hz) 52 = 220V (50Hz) 53 = 230V (50Hz) 54 = 240V (50Hz)	F = Fuse P = Photocell -SP = External Photocell (480V) Q = Quartz Standby Note: The F and P options require the selection of a single voltage ballast	
 <p>EXTENDED UPSWEEP ARM</p>		<p>A = 18.5" (470 mm) B = 7.9" (201 mm) C = 19.6" (498 mm) D = 26.5" (674 mm)</p> 				<p><b>Color Options</b></p> <p>BZ = Bronze BK = Black WH = White PB = Platinum Bronze SV = Silver</p>		 <p>HINGED WALL MOUNT BOX</p>
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								 <p>EXTENDED ARM</p>

**MEDIUM AVIATOR TYPE IV HORIZONTAL**

**LEFT:** Candlepower distribution curve of 400W PSMH without backlight shield.

**RIGHT:** Isofootcandle plot of 400W PSMH at 30' (9.1 m) mounting height, 0° vertical tilt, without backlight shield removed. (Plan view)





## Extended Information



SBL-AV1  
BACKLIGHT SHIELD



AVRP-1  
ROUND POLE ADAPTOR

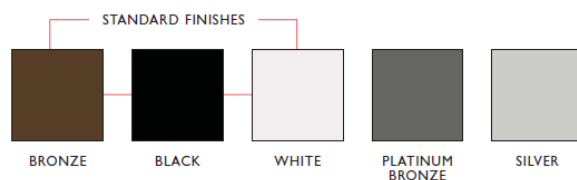


PT-A1  
POST TOP  
TENON ADAPTOR



WM-5  
EXTENDED ARM

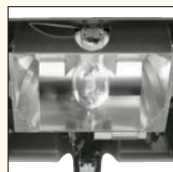
The Aviator's unique Colorfast DeltaGuard™ paint and finish system delivers a wide range of color options for your consideration and is covered by a full 7-year warranty.



**QUICK-CONNECT BALLAST TRAY**  
One-piece, field replaceable electrical ballast tray allows for quick connect and disconnect, easing both installation and maintenance.



**EASY ACCESS HINGE AND LENS**  
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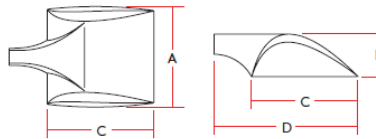
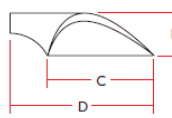


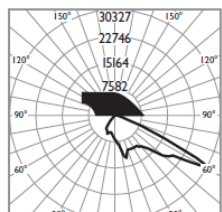
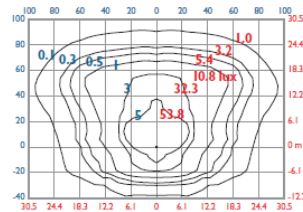

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**TOOL-LESS ENTRY**  
Proprietary door-frame latching system allows easy access and servicing of lamp for normal maintenance.

<b>Project Name</b>	Big W-Distribution Centre-Sydney
<b>Project Number</b>	5040
<b>Luminaire Type</b>	Type "W" 400 Watt Wall Mounted Luminaire
<b>Luminaire Name</b>	Aviator Medium Type IV - Wall Mount
<b>Description</b>	Metal Halide Wall Mounted Full Cutoff Medium Area Light
<b>Fitting Size</b>	See Below
<b>Manufacturer</b>	RUUD
<b>Catalogue Number</b>	See Below
<b>Notes</b>	Complete with Forward Throw Reflector

## Pictures & Details

AV	H	4	0	6	40 -	2	P	BZ
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								 <p><b>INTEGRATED ARM</b></p>
<p><b>MEDIUM AVIATOR TYPE IV HORIZONTAL</b></p> <p><b>LEFT:</b> Candlepower distribution curve of 400W PSMH without backlight shield.</p> <p><b>RIGHT:</b> Isofootcandle plot of 400W PSMH at 30' (9.1 m) mounting height, 0° vertical tilt, without backlight shield removed. (Plan view)</p>								 <p><b>EXTENDED ARM</b></p>

## Extended Information



SBL-AV1  
BACKLIGHT SHIELD



AVRP-1  
ROUND POLE ADAPTOR

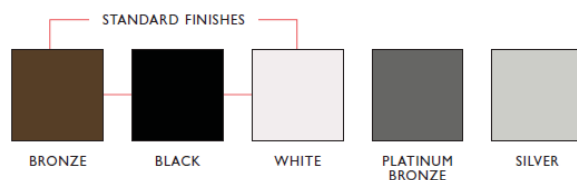


PT-A1  
POST TOP  
TENON ADAPTOR



WM-5  
EXTENDED ARM

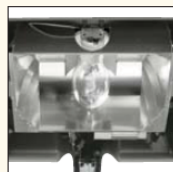
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**QUICK-CONNECT BALLAST TRAY**  
One-piece, field replaceable electrical ballast tray allows for quick connect and disconnect, easing both installation and maintenance.



**EASY ACCESS HINGE AND LENS**  
The luminaire door is attached to the housing with a patented internal hinge assembly allowing for easy removal of the doorframe, if required. A high temperature silicone gasket seals the optical system from dirt and debris (IP65).



**PREMIUM OPTICS**  
Horizontal lamp with premium reflector materials in a segmented reflector design. This combination delivers excellent streetside efficiency, superior backlight control and greatly improved uniformity demanded by lighting specifiers.


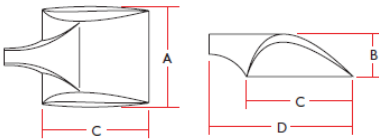
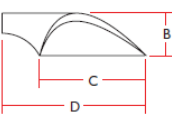



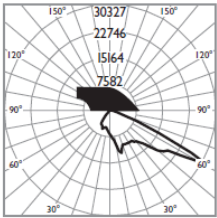
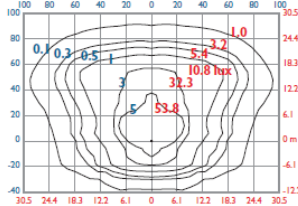


**TOOL-LESS ENTRY**  
Proprietary door-frame latching system allows easy access and servicing of lamp for normal maintenance.



<b>Project Name</b>	Big W-Distribution Centre-Sydney
<b>Project Number</b>	5040
<b>Luminaire Type</b>	Type "Y" 250 Watt Wall Mounted Luminaire
<b>Luminaire Name</b>	Aviator Medium Type IV - Pole Mount
<b>Description</b>	Metal Halide Pole Mounted Full Cutoff Medium Area Light
<b>Fitting Size</b>	See Below
<b>Manufacturer</b>	RUUD
<b>Catalogue Number</b>	See Below
<b>Notes</b>	Complete with Forward Throw Reflector

#### Pictures & Details

AV	H	4	0	6	40 -	2	P	BZ
<b>Product Family</b>	<b>Lamp Orientation</b>	<b>Optical Systems</b>	<b>Mounting Options</b>	<b>Lamps/Ballasts</b>	<b>Wattages</b>	<b>Ballast Voltages</b>	<b>Options (Factory Installed)</b>	
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<b>EXTENDED UPSWEEP ARM</b>								
								
								<b>INTEGRATED ARM</b>
<b>MEDIUM AVIATOR TYPE IV HORIZONTAL</b>								
<b>LEFT:</b> Candlepower distribution curve of 400W PSMH without backlight shield.								<b>EXTENDED ARM</b>
<b>RIGHT:</b> Isofootcandle plot of 400W PSMH at 30' (9.1 m) mounting height, 0° vertical tilt, without backlight shield removed. (Plan view)								

## Extended Information



SBL-AVI  
BACKLIGHT SHIELD



AVRP-I  
ROUND POLE ADAPTOR



PT-AI  
POST TOP  
TENON ADAPTOR



WM-5  
EXTENDED ARM



The Aviator's unique Colorfast DeltaGuard™ paint and finish system delivers a wide range of color options for your consideration and is covered by a full 7-year warranty.

### STANDARD FINISHES



BRONZE



BLACK



WHITE



PLATINUM  
BRONZE



SILVER

### DIE-CAST, SINGLE-PIECE HOUSING

The low-copper aluminum housing with integrated mounting arm helps the luminaire resist corrosion.



### 7-YEAR FINISH WARRANTY

Exclusive Colorfast DeltaGuard™ finish provides extra corrosion protection, with an electrically deposited epoxy primer and ultra-durable polyester topcoat.

### 40° C PERFORMANCE

All components are mounted to maximize heat transfer and maintain the coolest possible ballast operating temperatures, allowing for a 40° C ambient operation rating. UL, C-UL and CE listed for wet locations. Other approvals and certifications are also available; consult your local affiliate.



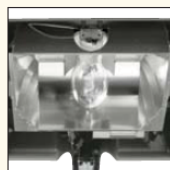
### QUICK-CONNECT BALLAST TRAY

One-piece, field replaceable electrical ballast tray allows for quick connect and disconnect, easing both installation and maintenance.



### EASY ACCESS HINGE AND LENS

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### PREMIUM OPTICS

Horizontal lamp with premium reflector materials in a segmented reflector design. This combination delivers excellent streetside efficiency, superior backlight control and greatly improved uniformity demanded by lighting specifiers.





### TOOL-LESS ENTRY

Proprietary door-frame latching system allows easy access and servicing of lamp for normal maintenance.

<b>Project Name</b>	Big W-Distribution Centre-Sydney
<b>Project Number</b>	5040
<b>Luminaire Type</b>	Type "Z" 1000 Watt Pole Mounted Luminaire
<b>Luminaire Name</b>	Aviator Large Type III - Pole Mount
<b>Description</b>	Metal Halide Pole Mounted Full Cutoff Large Area Light
<b>Fitting Size</b>	See Below
<b>Manufacturer</b>	RUUD
<b>Catalogue Number</b>	See Below
<b>Notes</b>	Complete with Forward Throw Reflector

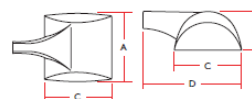
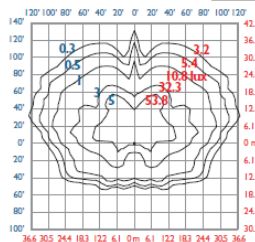
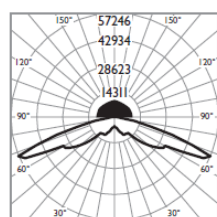
#### Pictures & Details

AV	V	4	R	6	99 -	M	P	BK
Product Family	Lamp Orientation	Optical Systems	Mounting Options	Lamps/Ballasts	Wattages	Ballast Voltages	Options (Factory Installed)	
AV = Aviator	V = Vertical	3 = Parking/Roadway (Type III) 4 = Forward Throw (Type IV) 5 = Quadrate (Type V)	0 = Side Arm Mount with optic in standard configuration L = Side Arm Mount with optic rotated properly to install fixture rotated 90° to the left of standard configuration R = Side Arm Mount with optic rotated properly to install fixture rotated 90° to the right of standard configuration F = Round Tube Center Tenon (Tenon Fitter for 2-3/8" up to 3" O.D.) H = Round Tube Center (Direct Fitter for 4" Square Pole) I = Round Tube Center (Direct Fitter for 5" Square Pole) J = Round Tube Center (Direct Fitter for 6" Square Pole)	4 = Probe Start Metal Halide 5 = High Pressure Sodium 6 = Pulse Start Metal Halide	75 = 750 Watt PSMH 99 = 1000 Watt PSMH/MH/HPS 925 = 250 Watt PSMH (Large Aviator) 932 = 320 Watt PSMH (Large Aviator) 935 = 350 Watt PSMH (Large Aviator) 940 = 400 Watt PSMH (Large Aviator) <i>(Other wattages available - consult factory)</i>	M = Multi-tap (120/208/240/277V) D = Dual volt (120/277V) T = Tri-volt (120/277/347V) 1 = 120 Volt 2 = 277 Volt 27 = 277 Volt 3 = 208 Volt 4 = 240 Volt 5 = 480 Volt 6 = 347 Volt 50 = 220-240V (50-Hz) 52 = 220V (50-Hz) 53 = 230V (50-Hz) 54 = 240V (50-Hz)	F = Fuse P = Photocell -SP = External Photocell (480V) Q = Quartz Standby  <i>Note: The F and P options require the selection of a single voltage ballast.</i>  <b>Color Options</b> BZ = Bronze BK = Black WH = White PB = Platinum Bronze SV = Silver	 SIDE ARM   POST TOP MOUNT

#### LARGE AVIATOR TYPE III VERTICAL

LEFT: Candlepower distribution curve of 1000W MH Type III.

RIGHT: Isofootcandle plot of 1000W MH Type III at 32' (9.7 m) AFG [30' (9.1 m) pole plus 2' (0.6 m) base height].



A = 25" (635 mm)  
B = 14.5" (368 mm)  
C = 25.0" (635 mm)  
D = 36.7" (931 mm)



## Shelmerdines Consulting Engineers

### Extended Information

#### DIE-CAST, SINGLE-PIECE HOUSING

Seamless die-cast aluminum optic housing provides years of rugged, maintenance-free service. The ballast compartments are engineered to provide very cool ballast operation. In the side mount arm configuration, the ballast and other electrical components are located within the side arm. In the post-top mount configuration, the ballast is within the post-top hub.



AVR-P-1  
ROUND POLE ADAPTOR

#### 7-YEAR FINISH WARRANTY

Exclusive Colorfast DeltaGuard™ finish provides extra corrosion protection, with an electrically deposited epoxy primer and ultra-durable polyester topcoat.



#### EASY ACCESS HINGE AND LENS

The luminaire door is attached to the housing with a patented internal hinge assembly allowing for easy removal of the door/frame, if required. A high temperature silicone gasket seals the optical system from dirt and debris (IP65). The flat glass lens achieves the desired full-cutoff classification.



#### TOOL-LESS ENTRY

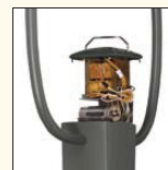
Proprietary door-frame latching system allows easy access and servicing of lamp for normal maintenance. Door-frame is low-copper aluminum to resist corrosion.

#### PREMIUM VERTICAL LAMP OPTICS

Vertical lamps deliver improved performance in both life and lumen maintenance over horizontal lamps. The Aviator features premium reflector materials utilized in a segmented optical reflector design. This combination delivers excellent streetside efficiency, superior backlight control and greatly improved uniformity demanded by lighting specifiers.

#### 40° C PERFORMANCE

All components are mounted to maximize heat transfer and maintain the coolest possible ballast operating temperatures, allowing for a 40° C ambient operation rating. UL, C-UL and CE listed for wet locations. Other approvals and certifications are also available; consult your local affiliate.



#### QUICK-CONNECT BALLAST TRAY


In both the side arm and post-top mount configurations, the ballast and other electrical components are located on a one-piece tray for quick and easy connect and disconnect during installation and maintenance. Access to the ballast compartments requires nothing more than a screwdriver. Ballast compartments shown are with CWA gear.

**Project Name** Big W-Distribution Centre-Sydney  
**Project Number** 5040  
**Luminaire Type** Option Type 4  
**Luminaire Name** The Edge LED Area Light - Type V Medium - ARE-ED  
**Description** LED Direct Post Top Area Light - Type V Distribution  
  
**Fitting Size** See Below  
**Manufacturer** Beta LED  
**Catalogue Number** ARE-EDG-5M-DA  
**Notes**

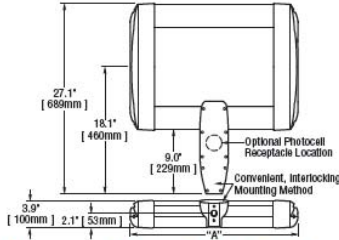
#### Pictures & Details

**ARE-EDG-5M-DA**
**THE EDGE™ LED Area Light – Type V Medium**
Rev. Date: 12/11/09

BetaLED Catalog #: ARE - EDG - 5M - DA - - C - - - - - Reset



**Notes:**



Optional Photocell Receptacle Location  
Convenient, Interlocking Mounting Method

# of LEDs	Dim. "A"
20	11.75"
40	11.75"
60	13.75"
80	15.75"
100	17.75"
120	19.75"
140	21.75"
160	23.75"
180	25.75"
200	27.75"
220	29.75"
240	31.75"

Product	Family	Optic	Mounting	# of LEDs (x 10)	LED Series	Voltage	Color Options	Factory-Installed Options
ARE	EDG	5M	DA <sup>2</sup>	<input type="checkbox"/> 02 <input type="checkbox"/> 04 <input type="checkbox"/> 06 <input type="checkbox"/> 08 <input type="checkbox"/> 10 <input type="checkbox"/> 12 <input type="checkbox"/> 14 <input type="checkbox"/> 16 <input type="checkbox"/> 18 <input type="checkbox"/> 20 <input type="checkbox"/> 22 <input type="checkbox"/> 24	C	<input type="checkbox"/> UL Universal 120-277V <input type="checkbox"/> UH Universal 347-480V <input type="checkbox"/> 12 120V <input type="checkbox"/> 24 240V <input type="checkbox"/> 27 277V <input type="checkbox"/> 34 347V	<input type="checkbox"/> SV Silver <input type="checkbox"/> BK Black <input type="checkbox"/> BZ Bronze <input type="checkbox"/> PB Platinum <input type="checkbox"/> BR Bronze <input type="checkbox"/> WH White	Please type additional options in manually on the lines provided above. <input type="checkbox"/> 43K 4300K Color Temperature <sup>3</sup> <input type="checkbox"/> 525 525mA Drive Current <sup>4,5</sup> <input type="checkbox"/> DIM 0-10V Dimming <sup>6,7</sup> <input type="checkbox"/> F Fuse <sup>8</sup> <input type="checkbox"/> HL Hi/Low (175/350/525, dual circuit input) <sup>9,11</sup> <input type="checkbox"/> P Photocell <sup>12-15</sup> <input type="checkbox"/> R NEMA Photocell Receptacle <sup>14-17</sup> <input type="checkbox"/> TL Two-Level (175/525 w/ integrated sensor control) <sup>3,11</sup> <input type="checkbox"/> TL2 Two-Level (0/350 w/ integrated sensor control) <sup>11</sup> <input type="checkbox"/> TL3 Two-Level (0/525 w/ integrated sensor control) <sup>3,11</sup>

## Extended Information

LED PERFORMANCE SPECS																
# of LEDs	Initial Delivered Lumens – Type III Medium @ 6000K	B U G Ratings	Initial Delivered Lumens – Type III Medium w/ Backlight Control @ 6000K	B U G Ratings	Initial Delivered Lumens – Type III Medium @ 4300K	B U G Ratings	Initial Delivered Lumens – Type III Medium w/ Backlight Control @ 4300K	B U G Ratings	System Watts 120-277V	Total Current @ 120V	Total Current @ 230V	Total Current @ 277V	System Watts 347-480V	Total Current @ 347V	Total Current @ 480V	L <sub>90</sub> Hours <sup>2</sup> @ 25° C (77° F)
350mA (Standard) Fixture Operating at 25° C (77° F)																
20	1,649 (02)	1 1 1	1,237 (02)	0 1 1	1,446 (02)	1 1 1	1,085 (02)	0 1 1	25	0.23	0.11	0.10	30	0.10	0.15	105,000
40	3,298 (04)	1 1 1	2,473 (04)	0 1 1	2,892 (04)	1 1 1	2,169 (04)	0 1 1	49	0.41	0.23	0.20	55	0.16	0.16	105,000
60	4,946 (06)	2 2 2	3,710 (06)	0 1 1	4,338 (06)	2 2 2	3,254 (06)	0 1 1	71	0.60	0.32	0.28	77	0.22	0.20	105,000
80	6,595 (08)	2 2 2	4,946 (08)	1 2 2	5,785 (08)	2 2 2	4,338 (08)	1 2 1	93	0.78	0.41	0.35	99	0.29	0.23	105,000
100	8,244 (10)	3 3 3	6,183 (10)	1 3 2	7,231 (10)	2 2 2	5,423 (10)	1 2 2	116	0.98	0.52	0.43	123	0.35	0.28	105,000
120	9,893 (12)	3 3 3	7,419 (12)	1 3 2	8,677 (12)	3 3 3	6,508 (12)	1 3 2	139	1.17	0.61	0.52	146	0.42	0.33	105,000
140	11,541 (14)	3 3 3	8,656 (14)	1 3 2	10,123 (14)	3 3 3	7,592 (14)	1 3 2	164	1.39	0.74	0.63	172	0.50	0.37	105,000
160	13,190 (16)	3 3 3	9,893 (16)	1 3 2	11,569 (16)	3 3 3	8,677 (16)	1 3 2	186	1.58	0.83	0.71	195	0.56	0.41	105,000
180	14,839 (18)	3 3 3	11,129 (18)	1 3 2	13,015 (18)	3 3 3	9,762 (18)	1 3 2	211	1.77	0.93	0.79	220	0.63	0.47	105,000
200	16,488 (20)	3 3 3	12,368 (20)	2 3 2	14,462 (20)	3 3 3	10,846 (20)	1 3 2	233	1.97	1.03	0.87	243	0.70	0.51	105,000
220	18,136 (22)	3 3 3	13,602 (22)	2 3 2	15,908 (22)	3 3 3	11,931 (22)	1 3 2	256	2.16	1.13	0.95	267	0.77	0.56	105,000
240	19,785 (24)	3 3 3	14,839 (24)	2 3 3	17,354 (24)	3 3 3	13,015 (24)	2 3 2	279	2.35	1.23	1.03	291	0.84	0.61	105,000
525mA Fixture Operating at 25° C (77° F)																
20	2,143 (02)	1 1 1	1,608 (02)	0 1 1	1,880 (02)	1 1 1	1,410 (02)	0 1 1	37	0.31	0.18	0.17	43	0.13	0.15	61,000
40	4,287 (04)	2 2 2	3,215 (04)	0 1 1	3,760 (04)	1 1 1	2,820 (04)	0 1 1	69	0.58	0.31	0.27	75	0.22	0.19	61,000
60	6,430 (06)	2 2 2	4,823 (06)	1 2 2	5,640 (06)	2 2 2	4,230 (06)	1 2 1	110	0.92	0.49	0.41	116	0.33	0.27	61,000
80	8,574 (08)	3 3 3	6,430 (08)	1 3 2	7,520 (08)	2 2 2	5,640 (08)	1 2 2	138	1.16	0.62	0.54	145	0.42	0.32	61,000
100	10,717 (10)	3 3 3	8,038 (10)	1 3 2	9,400 (10)	3 3 3	7,050 (10)	1 3 2	177	1.49	0.79	0.68	186	0.53	0.40	61,000
120	12,860 (12)	3 3 3	9,645 (12)	1 3 2	11,280 (12)	3 3 3	8,460 (12)	1 3 2	217	1.82	0.96	0.81	226	0.65	0.48	61,000

1. Utilizes magnetic step-down transformer

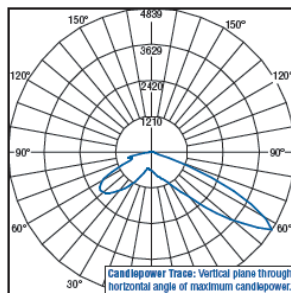
2. For recommended lumen depreciation data see TD-13

3. For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit [www.iesna.org/PDF/Erates/TM-15-07bugRatingAddendum.pdf](http://www.iesna.org/PDF/Erates/TM-15-07bugRatingAddendum.pdf)

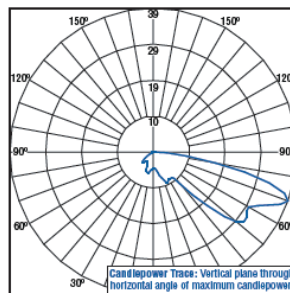
### Field-Installed Accessories



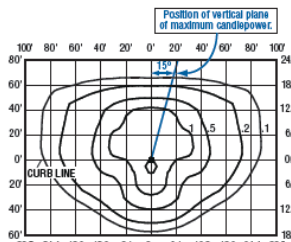
### Photometrics



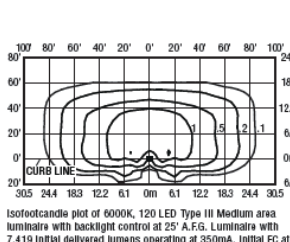
Independent Testing Laboratories certified test. Report No. TL65574. Candlegpower trace of 6000K, 120 LED Type III Medium area luminaire with 9,914 initial delivered lumens operating at 350mA. All published luminaire photometric testing performed to IESNA LM-79-08 standards.



PRELIMINARY Candlegpower trace of Type III Medium LED luminaire with backlight control.



Isofootcandle plot of 6000K, 120 LED Type III Medium area luminaire at 25' A.F.G. Luminaire with 9,893 initial delivered lumens operating at 350mA. Initial FC at grade.



DA  
Direct



DL  
Direct-Long



AA  
Adjustable Arm



R3  
Post Top  
2-3/8" to 3" OD



R4  
Post Top  
4" Square




**Project Name** Big W-Distribution Centre-Sydney  
**Project Number** 5040  
**Luminaire Type** Option Type 3  
**Luminaire Name** The Edge LED Area Light - Type III Medium - ARE-ED  
**Description** LED Direct Post Top Area Light - Type III Distribution  
**Fitting Size** See Below  
**Manufacturer** Beta LED  
**Catalogue Number** ARE-EDG-3M-DA  
**Notes**

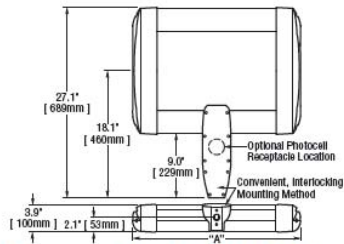
#### Pictures & Details

**ARE-EDG-3M-DA    THE EDGE™ LED Area Light – Type III Medium    Rev. Date: 12/11/09**

BetaLED Catalog #: ARE - EDG -    - DA -    - C -    -    -    Reset



**Notes:**



# of LEDs	Dim. "A"
20	11.75"
40	11.75"
60	13.75"
80	15.75"
100	17.75"
120	19.75"
140	21.75"
160	23.75"
180	25.75"
200	27.75"
220	29.75"
240	31.75"

Product	Family	Optic	Mounting	# of LEDs (x 10)	LED Series	Voltage	Color Options	Factory-Installed Options <small>Please type additional options in manually on the lines provided above.</small>
ARE	EDG	<input type="checkbox"/> 3M <sup>1</sup> <input type="checkbox"/> 3MB <sup>2</sup>	DA <sup>3</sup>	<input type="checkbox"/> 02 <input type="checkbox"/> 04 <input type="checkbox"/> 06 <input type="checkbox"/> 08 <input type="checkbox"/> 10 <input type="checkbox"/> 12 <input type="checkbox"/> 14 <input type="checkbox"/> 16 <input type="checkbox"/> 18 <input type="checkbox"/> 20 <input type="checkbox"/> 22 <input type="checkbox"/> 24	C	<input type="checkbox"/> UL Universal 120-277V <input type="checkbox"/> UH Universal 347-480V <input type="checkbox"/> 12 120V <input type="checkbox"/> 24 240V <input type="checkbox"/> 27 277V <input type="checkbox"/> 34 347V	<input type="checkbox"/> SV Silver <input type="checkbox"/> BK Black <input type="checkbox"/> BZ Bronze <input type="checkbox"/> PB Platinum Bronze <input type="checkbox"/> WH White	<input type="checkbox"/> 43K 4300K Color Temperature <sup>4</sup> <input type="checkbox"/> 62S 625mA Drive Current <sup>5,6</sup> <input type="checkbox"/> DIM 0-10V Dimming <sup>7,8</sup> <input type="checkbox"/> F Fuse <sup>9</sup> <input type="checkbox"/> HL Hi/Low (175/350/525, dual circuit input) <sup>10-12</sup> <input type="checkbox"/> P Photocell <sup>13-16</sup> <input type="checkbox"/> R NEMA Photocell Receptacle <sup>15-18</sup> <input type="checkbox"/> TL Two-Level (175/525 w/ integrated sensor control) <sup>10,12</sup> <input type="checkbox"/> TL2 Two-Level (0/350 w/ integrated sensor control) <sup>12</sup> <input type="checkbox"/> TL3 Two-Level (0/525 w/ integrated sensor control) <sup>10,12</sup>

## Extended Information

LED PERFORMANCE SPECS																									
# of LEDs	Initial Delivered Lumens - Type IV Medium @ 6000K	B	U	G	Initial Delivered Lumens - Type IV Medium w/ Backlight Control @ 6000K	B	U	G	Initial Delivered Lumens - Type IV Medium @ 4300K	B	U	G	Initial Delivered Lumens - Type IV Medium w/ Backlight Control @ 4300K	B	U	G	System Watts 120-277V	Total Current @ 120V	Total Current @ 230V	Total Current @ 277V	System Watts 347-480V <sup>1</sup>	Total Current @ 347V	Total Current @ 480V	L <sub>90</sub> Hours <sup>2</sup> @ 25° C (77° F)	
350mA (Standard) Fixture Operating at 25° C (77° F)																									
20	1,669 (02)	1	1	1	1,298 (02)	0	1	1	1,464 (02)	1	1	1	1,139 (02)	0	1	1	25	0.23	0.11	0.10	30	0.10	0.15	105,000	
40	3,339 (04)	1	1	1	2,597 (04)	0	1	1	2,928 (04)	1	1	1	2,278 (04)	0	1	1	49	0.41	0.23	0.20	55	0.16	0.16	105,000	
60	5,008 (06)	2	1	1	3,895 (06)	1	1	1	4,393 (06)	1	1	1	3,417 (06)	1	1	1	71	0.60	0.32	0.28	77	0.22	0.20	105,000	
80	6,677 (08)	2	2	2	5,194 (08)	1	1	2	5,857 (08)	2	2	2	4,555 (08)	1	1	1	93	0.78	0.41	0.35	99	0.29	0.23	105,000	
100	8,347 (10)	2	2	2	6,492 (10)	1	2	2	7,321 (10)	2	2	2	5,694 (10)	1	2	2	116	0.98	0.52	0.43	123	0.35	0.28	105,000	
120	10,016 (12)	2	2	2	7,790 (12)	1	2	2	8,785 (12)	2	2	2	6,833 (12)	1	2	2	139	1.17	0.61	0.52	146	0.42	0.33	105,000	
140	11,686 (14)	3	3	3	9,089 (14)	1	2	2	10,250 (14)	2	2	2	7,972 (14)	1	2	2	164	1.39	0.74	0.63	172	0.50	0.37	105,000	
160	13,355 (16)	3	3	3	10,387 (16)	1	2	2	11,714 (16)	3	3	3	9,111 (16)	1	2	2	186	1.58	0.83	0.71	195	0.56	0.41	105,000	
180	15,024 (18)	3	3	3	11,686 (18)	1	3	2	13,178 (18)	3	3	3	10,250 (18)	1	2	2	211	1.77	0.93	0.79	220	0.63	0.47	105,000	
200	16,694 (20)	3	3	3	12,984 (20)	2	3	2	14,642 (20)	3	3	3	11,388 (20)	1	3	2	233	1.97	1.03	0.87	243	0.70	0.51	105,000	
220	18,363 (22)	3	3	3	14,282 (22)	2	3	3	16,107 (22)	3	3	3	12,527 (22)	2	3	3	256	2.16	1.13	0.95	267	0.77	0.56	105,000	
240	20,032 (24)	3	3	3	15,581 (24)	2	3	3	17,571 (24)	3	3	3	13,666 (24)	2	3	3	279	2.35	1.23	1.03	291	0.84	0.61	105,000	
525mA Fixture Operating at 25° C (77° F)																									
20	2,170 (02)	1	1	1	1,688 (02)	0	1	1	1,903 (02)	1	1	1	1,480 (02)	0	1	1	37	0.31	0.18	0.17	43	0.13	0.15	61,000	
40	4,340 (04)	1	1	1	3,376 (04)	1	1	1	3,807 (04)	1	1	1	2,961 (04)	1	1	1	69	0.58	0.31	0.27	75	0.22	0.19	61,000	
60	6,511 (06)	2	2	2	5,064 (06)	1	1	2	5,710 (06)	2	2	1	4,441 (06)	1	1	1	110	0.92	0.49	0.41	116	0.33	0.27	61,000	
80	8,681 (08)	2	2	2	6,752 (08)	1	2	2	7,614 (08)	2	2	2	5,922 (08)	1	2	2	138	1.16	0.62	0.54	145	0.42	0.32	61,000	
100	10,851 (10)	2	2	2	8,440 (10)	1	2	2	9,517 (10)	2	2	2	7,402 (10)	1	2	2	177	1.49	0.79	0.68	186	0.53	0.40	61,000	
120	13,021 (12)	3	3	3	10,127 (12)	1	2	2	11,421 (12)	2	3	2	8,883 (12)	1	2	2	217	1.82	0.96	0.81	226	0.65	0.48	61,000	
1. Utilizes magnetic step-down transformer																									
2. For recommended minimum lumen depreciation data see <a href="#">TD-13</a>																									
3. For more information on the IES E80 (Backlight-Uplight-Star) Rating System, please see <a href="#">this</a> link.																									

1. Utilizes magnetic step-down transformer

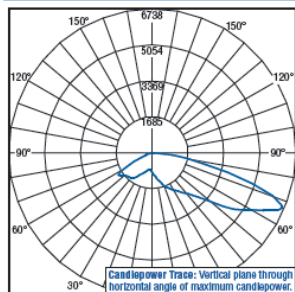
2. For recommended lumen depreciation data see [TD-13](#)

3. For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit [www.iesna.org/PDF/Erratas/TM-15-07BugRatingAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-07BugRatingAddendum.pdf)

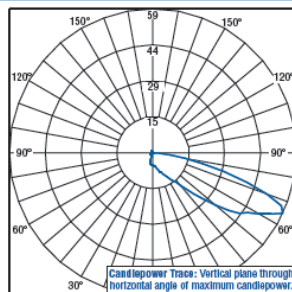
### Field-Installed Accessories



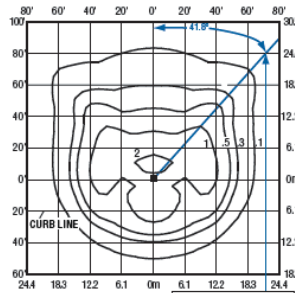
### Photometrics



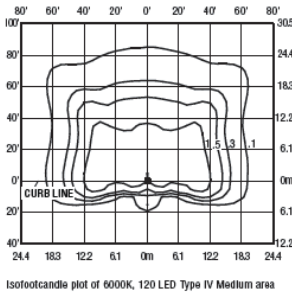
Independent Testing Laboratories certified test. Report No. ITL63810. Candpower trace of 6000K, 120 LED Type IV Medium area luminaire with 10,464 initial delivered lumens operating at 350mA. All published luminaire photometric testing performed to IESNA LM-79-08 standards.



PRELIMINARY Candpower trace of Type IV Medium LED luminaire with backlight control.



Isofootcandle plot of 6000K, 120 LED Type IV Medium area luminaire at 25° A.F.G. Luminaire with 10,016 initial delivered lumens operating at 350mA. Initial FC at grade.



Isofootcandle plot of 6000K, 120 LED Type IV Medium area luminaire with backlight control at 25° A.F.G. Luminaire with 7,790 initial delivered lumens operating at 350mA. Initial FC at grade.



DA  
Direct



DL  
Direct-Long



AA  
Adjustable Arm



R3  
Post Top  
2-3/8" to 3" OD




R4  
Post Top  
4" Square

**Project Name** Big W-Distribution Centre-Sydney  
**Project Number** 5040  
**Luminaire Type** Option Type 2  
**Luminaire Name** The Edge LED Area Light - Type IV Medium - ARE-ED  
**Description** LED Direct Post Top Area Light - Type IV Distribution  
**Fitting Size** See Below  
**Manufacturer** Beta LED  
**Catalogue Number** ARE-EDG-4M-DA  
**Notes**

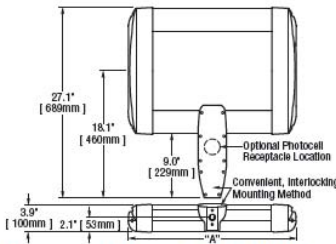
#### Pictures & Details

**ARE-EDG-4M-DA**
**THE EDGE™ LED Area Light – Type IV Medium**
Rev. Date: 12/11/09

BetaLED Catalog #: ARE - EDG -    - DA -    - C -    - DIM -    Reset



**Notes:**



Optional Photocell  
Receptacle Location  
Convenient, Interlocking  
Mounting Method

# of LEDs	Dim. "A"
20	11.75"
40	11.75"
60	13.75"
80	15.75"
100	17.75"
120	19.75"
140	21.75"
160	23.75"
180	25.75"
200	27.75"
220	29.75"
240	31.75"

Product	Family	Optic	Mounting	# of LEDs (x 10)	LED Series	Voltage	Color Options	Factory-Installed Options <small>Please type additional options in manually on the lines provided above.</small>
ARE	EDG	<input type="checkbox"/> 4M <sup>1</sup> <input type="checkbox"/> 4MB <sup>2</sup>	DA <sup>3</sup>	<input type="checkbox"/> 02 <input type="checkbox"/> 04 <input type="checkbox"/> 06 <input type="checkbox"/> 08 <input type="checkbox"/> 10 <input type="checkbox"/> 12 <input type="checkbox"/> 14 <input type="checkbox"/> 16 <input type="checkbox"/> 18 <input type="checkbox"/> 20 <input type="checkbox"/> 22 <input type="checkbox"/> 24	C	<input type="checkbox"/> UL Universal 120-277V <input type="checkbox"/> UH Universal 347-480V <input type="checkbox"/> 12 120V <input type="checkbox"/> 24 240V <input type="checkbox"/> 27 277V <input type="checkbox"/> 34 347V	<input type="checkbox"/> SV Silver <input type="checkbox"/> BK Black <input type="checkbox"/> BZ Bronze <input type="checkbox"/> PB Platinum Bronze <input type="checkbox"/> WH White	<input type="checkbox"/> 43K 4300K Color Temperature <sup>4</sup> <input type="checkbox"/> 525 525mA Drive Current <sup>5,6</sup> <input type="checkbox"/> DIM 0-10V Dimming <sup>7,8</sup> <input type="checkbox"/> F Fuse <sup>9</sup> <input type="checkbox"/> HL Hi/Low (175/350/525, dual circuit input) <sup>10-12</sup> <input type="checkbox"/> P Photocell <sup>13-16</sup> <input type="checkbox"/> R NEMA Photocell Receptacle <sup>15-18</sup> <input type="checkbox"/> TL Two-Level (175/525 w/ integrated sensor control) <sup>10,12</sup> <input type="checkbox"/> TL2 Two-Level (0/350 w/ integrated sensor control) <sup>12</sup> <input type="checkbox"/> TL3 Two-Level (0/525 w/ integrated sensor control) <sup>10,12</sup>



# Shelmerdines

## Consulting Engineers

### Extended Information

LED PERFORMANCE SPECS																
# of LEDs	Initial Delivered Lumens - Type V Short @ 6000K	B	U	G	Initial Delivered Lumens - Type V Short @ 4300K	B	U	G	System Watts 120-277V	Total Current @ 120V	Total Current @ 230V	Total Current @ 277V	System Watts 347-480V <sup>1</sup>	Total Current @ 347V	Total Current @ 480V	L <sub>90</sub> Hours <sup>2</sup> @ 25° C (77° F)
350mA (Standard) Fixture Operating at 25° C (77° F)																
20	1,917 (02)	1	0	0	1,681 (02)	1	0	0	25	0.23	0.11	0.10	30	0.10	0.15	105,000
40	3,833 (04)	2	0	0	3,362 (04)	2	0	0	49	0.41	0.23	0.20	55	0.16	0.16	105,000
60	5,750 (06)	2	0	1	5,043 (06)	2	0	1	71	0.60	0.32	0.28	77	0.22	0.20	105,000
80	7,667 (08)	3	0	1	6,725 (08)	2	0	1	93	0.78	0.41	0.35	99	0.29	0.23	105,000
100	9,583 (10)	3	0	1	8,406 (10)	3	0	1	116	0.98	0.52	0.43	123	0.35	0.28	105,000
120	11,500 (12)	3	0	1	10,087 (12)	3	0	1	139	1.17	0.61	0.52	146	0.42	0.33	105,000
140	13,417 (14)	3	1	2	11,768 (14)	3	0	1	164	1.39	0.74	0.63	172	0.50	0.37	105,000
160	15,333 (16)	3	1	2	13,449 (16)	3	1	2	186	1.58	0.83	0.71	195	0.56	0.41	105,000
180	17,250 (18)	4	1	2	15,130 (18)	3	1	2	211	1.77	0.93	0.79	220	0.63	0.47	105,000
200	19,167 (20)	4	1	2	16,812 (20)	4	1	2	233	1.97	1.03	0.87	243	0.70	0.51	105,000
220	21,083 (22)	4	1	2	18,493 (22)	4	1	2	256	2.16	1.13	0.95	267	0.77	0.56	105,000
240	23,000 (24)	4	1	2	20,174 (24)	4	1	2	279	2.35	1.23	1.03	291	0.84	0.61	105,000
625mA Fixture Operating at 25° C (77° F)																
20	2,492 (02)	1	0	0	2,185 (02)	1	0	0	37	0.31	0.18	0.17	43	0.13	0.15	61,000
40	4,983 (04)	2	0	1	4,371 (04)	2	0	0	69	0.58	0.31	0.27	75	0.22	0.19	61,000
60	7,475 (06)	3	0	1	6,556 (06)	2	0	1	110	0.92	0.49	0.41	116	0.33	0.27	61,000
80	9,967 (08)	3	0	1	8,742 (08)	3	0	1	138	1.16	0.62	0.54	145	0.42	0.32	61,000
100	12,458 (10)	3	0	2	10,927 (10)	3	0	1	177	1.49	0.79	0.68	186	0.53	0.40	61,000
120	14,950 (12)	3	1	2	13,113 (12)	3	1	2	217	1.82	0.96	0.81	226	0.65	0.48	61,000
1. Utilizes magnetic step-down transformer																
2. For recommended lumen depreciation data see TD-13																
3. For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit <a href="http://www.iesna.org/OCOP/Erratas/TM-15-07BUGRatingAddendum.pdf">www.iesna.org/OCOP/Erratas/TM-15-07BUGRatingAddendum.pdf</a>																

### Field-Installed Accessories



Bird Spikes  
XA-BRDSBK

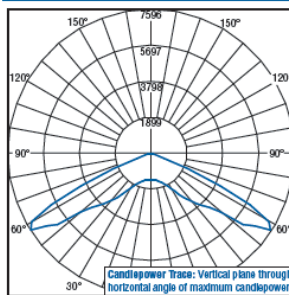


DA  
Direct

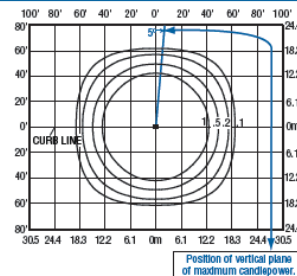


DL  
Direct-Long

### Photometrics



Independent Testing Laboratories certified test. Report No. ITL65747. Candepower trace of 6000K, 120 LED Type V Short area luminaire with 11,325 initial delivered lumens operating at 350mA. All published luminaire photometric testing performed to IESNA LM-79-08 standards.



Isotrope plot of 6000K, 120 LED Type V Short area luminaire at 25° A.F.G. Luminaire with 11,500 initial delivered lumens operating at 350mA. Initial FC at grade.



AA  
Adjustable Arm



R3  
Post Top  
2-3/8" to 3" OD



R4  
Post Top  
4" Square


**Project Name** Big W-Distribution Centre-Sydney  
**Project Number** 5040  
**Luminaire Type** Option Type 1  
**Luminaire Name** The Edge LED Area Light - Type V Short - ARE-EDG-  
**Description** LED Direct Post Top Area Light - Type V Distribution  
  
**Fitting Size** See Below  
**Manufacturer** Beta LED  
**Catalogue Number** ARE-EDG-5S-DA  
**Notes**

#### Pictures & Details

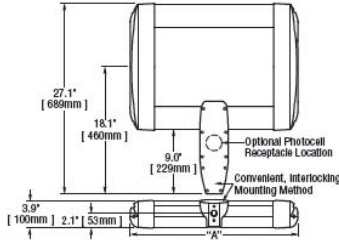
**ARE-EDG-5S-DA**
**THE EDGE™ LED Area Light – Type V Short**
Rev. Date: 12/11/09

BetaLED Catalog #: ARE - EDG - 5S - DA - - C - - - - -

Reset



**Notes:**



# of LEDs	Dim. "A"
20	11.75"
40	11.75"
60	13.75"
80	15.75"
100	17.75"
120	19.75"
140	21.75"
160	23.75"
180	25.75"
200	27.75"
220	29.75"
240	31.75"

Product	Family	Optic	Mounting	# of LEDs (x 10 )	LED Series	Voltage	Color Options	Factory-Installed Options
ARE	EDG	5S <sup>1</sup>	DA <sup>2</sup>	<input type="checkbox"/> 02 <input type="checkbox"/> 04 <input type="checkbox"/> 06 <input type="checkbox"/> 08 <input type="checkbox"/> 10 <input type="checkbox"/> 12 <input type="checkbox"/> 14 <input type="checkbox"/> 16 <input type="checkbox"/> 18 <input type="checkbox"/> 20 <input type="checkbox"/> 22 <input type="checkbox"/> 24	C	<input type="checkbox"/> UL Universal 120-277V <input type="checkbox"/> UH Universal 347-480V <input type="checkbox"/> 12 120V <input type="checkbox"/> 24 240V <input type="checkbox"/> 27 277V <input type="checkbox"/> 34 347V	<input type="checkbox"/> SV Silver <input type="checkbox"/> BK Black <input type="checkbox"/> BZ Bronze <input type="checkbox"/> PB Platinum <input type="checkbox"/> BR Bronze <input type="checkbox"/> WH White	Please type additional options in manually on the lines provided above. <input type="checkbox"/> 43K 4300K Color Temperature <sup>3</sup> <input type="checkbox"/> 525 525mA Drive Current <sup>4,5</sup> <input type="checkbox"/> DIM 0-10V Dimming <sup>6,7</sup> <input type="checkbox"/> F Fuse <sup>8</sup> <input type="checkbox"/> HL Hi/Low (175/350/525, dual circuit input) <sup>9,11</sup> <input type="checkbox"/> P Photocell <sup>12-15</sup> <input type="checkbox"/> R NEMA Photocell Receptacle <sup>14-18</sup> <input type="checkbox"/> TL Two-Level (175/525 w/ integrated sensor control) <sup>9,11</sup> <input type="checkbox"/> TL2 Two-Level (0/350 w/ integrated sensor control) <sup>11</sup> <input type="checkbox"/> TL3 Two-Level (0/525 w/ integrated sensor control) <sup>9,11</sup>



## Extended Information

LED PERFORMANCE SPECS																
# of LEDs	Initial Delivered Lumens – Type V Medium @ 6000K	B	U	G	Initial Delivered Lumens – Type V Medium @ 4300K	B	U	G	System Watts 120–277V	Total Current @ 120V	Total Current @ 230V	Total Current @ 277V	System Watts 347–480V <sup>1</sup>	Total Current @ 347V	Total Current @ 480V	L <sub>90</sub> Hours <sup>2</sup> @ 25° C (77° F)
350mA Fixture Operating at 25° C (77° F)																
20	1,793 (02)	1	1	1	1,573 (02)	1	1	1	25	0.23	0.11	0.10	30	0.10	0.15	105,000
40	3,586 (04)	2	1	1	3,145 (04)	2	1	1	49	0.41	0.23	0.20	55	0.16	0.16	105,000
60	5,379 (06)	3	1	1	4,718 (06)	3	1	1	71	0.60	0.32	0.28	77	0.22	0.20	105,000
80	7,172 (08)	3	1	2	6,291 (08)	3	1	1	93	0.78	0.41	0.35	99	0.29	0.23	105,000
100	8,965 (10)	3	2	2	7,863 (10)	3	2	2	116	0.98	0.52	0.43	123	0.35	0.28	105,000
120	10,758 (12)	4	2	2	9,436 (12)	4	2	2	139	1.17	0.61	0.52	146	0.42	0.33	105,000
140	12,551 (14)	4	2	2	11,009 (14)	4	2	2	164	1.39	0.74	0.63	172	0.50	0.37	105,000
160	14,344 (16)	4	2	2	12,582 (16)	4	2	2	186	1.58	0.83	0.71	195	0.56	0.41	105,000
180	16,137 (18)	4	3	2	14,154 (18)	4	2	2	211	1.77	0.93	0.79	220	0.63	0.47	105,000
200	17,930 (20)	4	3	2	15,727 (20)	4	3	2	233	1.97	1.03	0.87	243	0.70	0.51	105,000
220	19,723 (22)	5	3	3	17,300 (22)	4	3	2	256	2.16	1.13	0.95	267	0.77	0.56	105,000
240	21,516 (24)	5	3	3	18,872 (24)	5	3	3	279	2.35	1.23	1.03	291	0.84	0.61	105,000
625mA Fixture Operating at 25° C (77° F)																
20	2,331 (02)	2	1	1	2,044 (02)	2	1	1	37	0.31	0.18	0.17	43	0.13	0.15	61,000
40	4,662 (04)	3	1	1	4,089 (04)	3	1	1	69	0.58	0.31	0.27	75	0.22	0.19	61,000
60	6,993 (06)	3	1	2	6,133 (06)	3	1	1	110	0.92	0.49	0.41	116	0.33	0.27	61,000
80	9,324 (08)	4	2	2	8,178 (08)	3	2	2	138	1.16	0.62	0.54	145	0.42	0.32	61,000
100	11,655 (10)	4	2	2	10,222 (10)	4	2	2	177	1.49	0.79	0.68	186	0.53	0.40	61,000
120	13,986 (12)	4	2	2	12,267 (12)	4	2	2	217	1.82	0.96	0.81	226	0.65	0.48	61,000
1. Utilizes magnetic step-down transformer																
2. For recommended lumen depreciation data see <a href="#">TD-13</a>																
3. For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit <a href="http://www.iesna.org/PDF/Erates/TM-15-07BUGRatingsAddendum.pdf">www.iesna.org/PDF/Erates/TM-15-07BUGRatingsAddendum.pdf</a>																

### Field-Installed Accessories



Bird Spikes  
■XA-BRDSPK



DA  
Direct



DL  
Direct-Long



AA  
Adjustable Arm

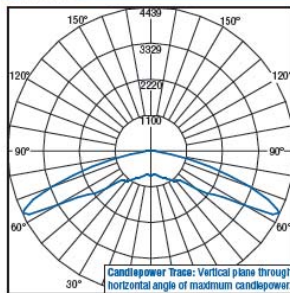


R3  
Post Top  
2-3/8" to 3" OD

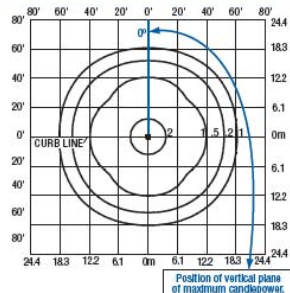


R4  
Post Top  
4" Square

### Photometrics

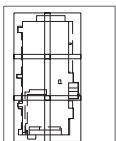


Independent Testing Laboratories certified test. Report No. ITL63746. Candepower trace of 6000K, 120 LED Type V Medium area luminaire with 11,013 initial delivered lumens operating at 350mA. All published luminaire photometric testing performed to IESNA LM-79-08 standards.



Position of vertical plane of maximum candepower.



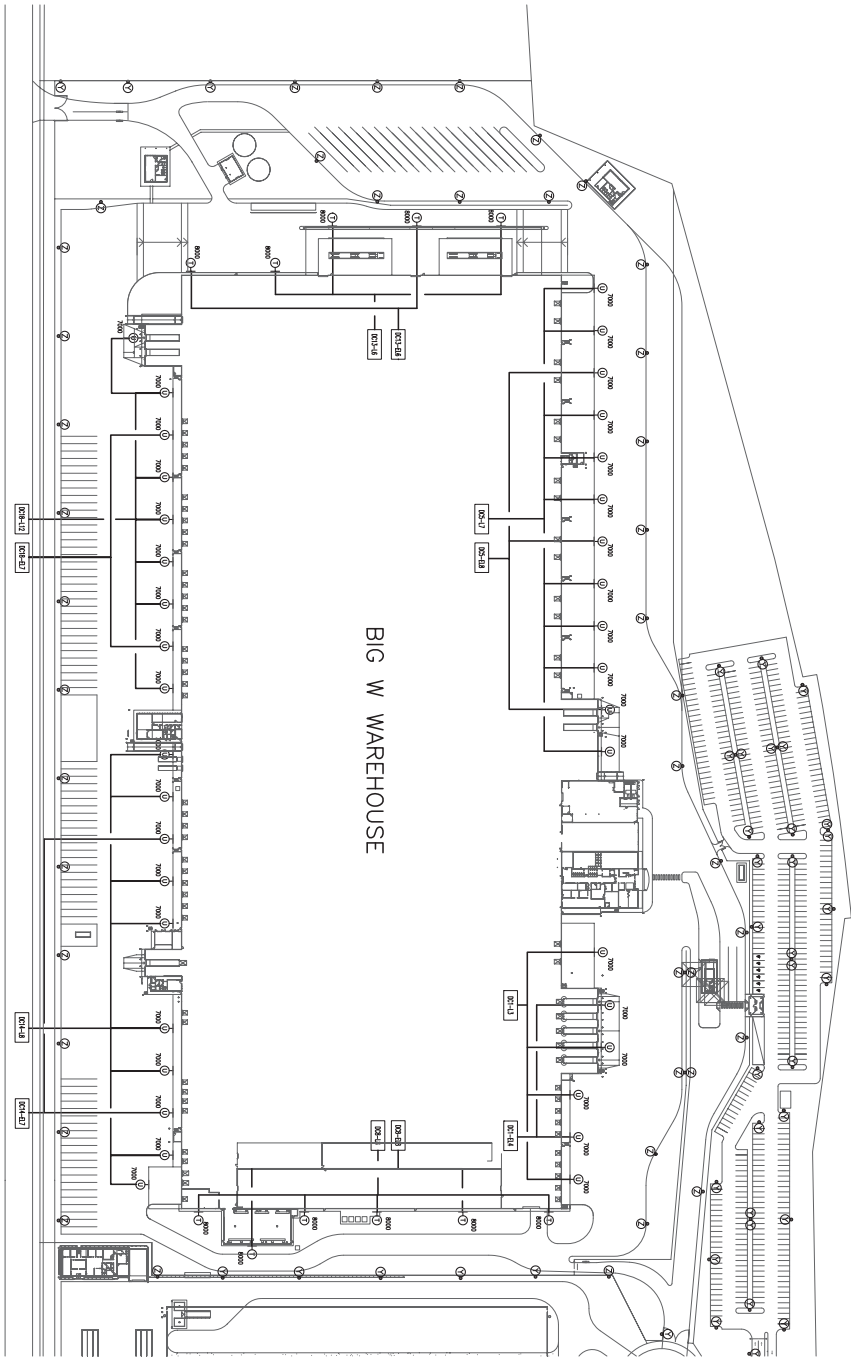


## KEY PLAN

THE PROPERTY IN THE DRAWING AND IN THE COMMENTS REGARDING SHEETNESS CONSIDERED TO BE THE PROPERTY OF THE USER. THE USER SHALL NOT BE RESPONSIBLE FOR THE SHEETNESS CONSIDERED TO BE THE PROPERTY OF THE USER. THE USER SHALL NOT BE RESPONSIBLE FOR THE SHEETNESS CONSIDERED TO BE THE PROPERTY OF THE USER.

ALL DIMENSIONS TO BE COMPLETED ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORK.

REFER BELOW FOR MORE AMENDMENTS



## BIG W WAREHOUSE

# PRELIMINARY



DATE	FEB 91	PROJECT #	5040	STATUS	ETD
SCALE	1:1000	(B)			
CREATOR	OT				
CHECKED	<i>W. Snyder</i>				
APPROVED	OT				
		DWG #	ESK-1		P2
		REV #			

**BIG W DC  
NSW**

MSW

ELECTRICAL &amp; MECHANICAL ENGINEERS



55 Marina Blvd.  
Piscataway, NJ 07050  
Tel: 908.764.7700  
Fax: 908.764.7701  
E-mail: [info@bentley.com](mailto:info@bentley.com)

MMA ARCHITECTS

---

**STRUCTURAL & CIVIL ENGINEERS**

Salim O. Lavee, J.D. George St. Patrick's Hall  
Tel: (02) 6991 6773 Fax: (02) 9553 9677

**BASSETTS**

HYDRAULIC ENGINEERS

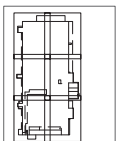
Suite 1, 769 Park Highway, Cambridge MA  
Tel: (617) 683-8511 Fax: (617) 944-1977

PAGE KIRKLAND

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**THE**

## EXTERNAL LIGHTING LAYOUT



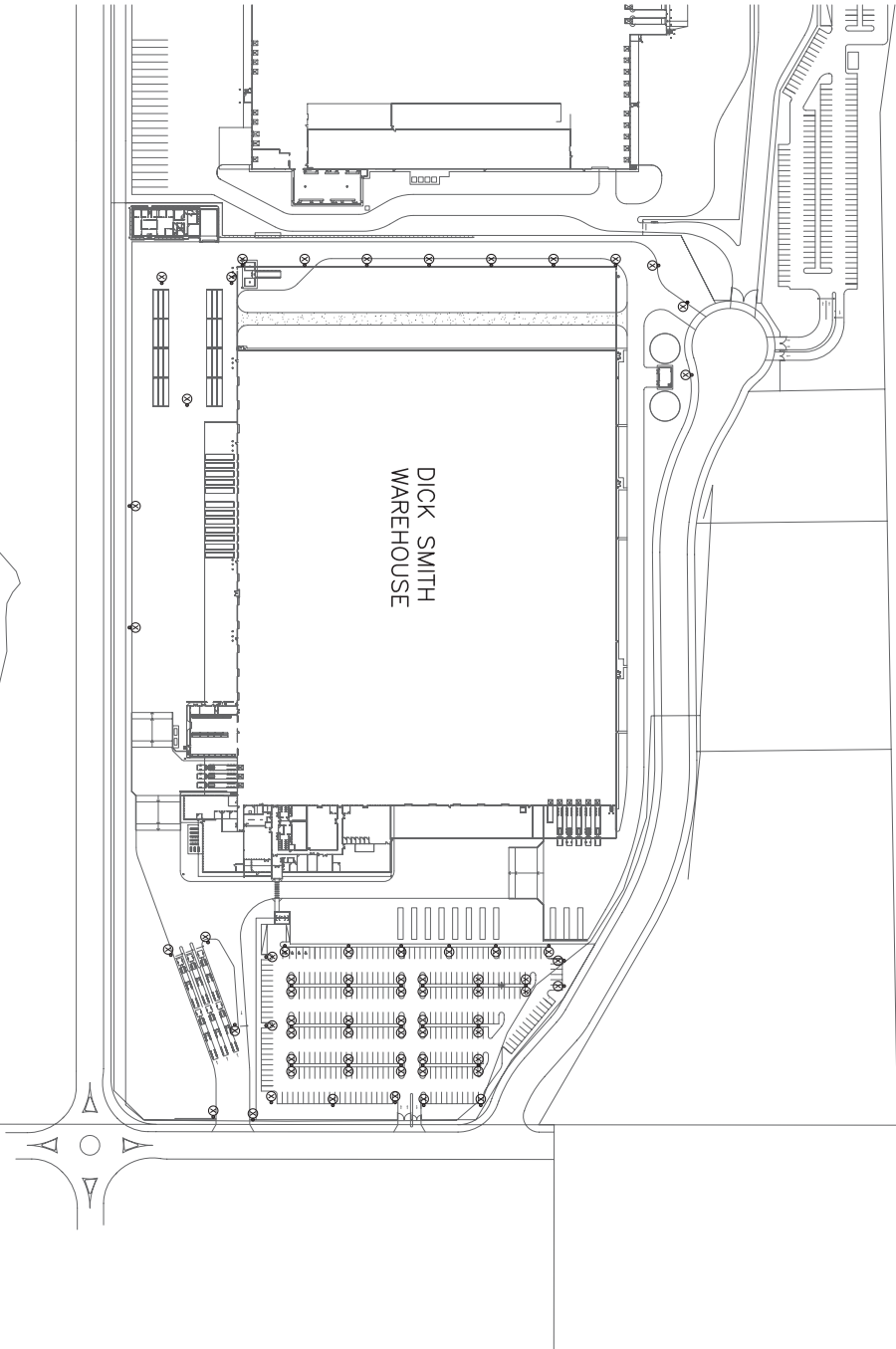
## KEY PLAN

THE PROBLEM WITH THE DRAWING AND THE COMMENTS REGARDING THE SHIELDING ARE CONSISTENT WITH THE COMMENTS MADE BY THE DRUMMERS. THE DRUMMERS WENT TO THE MOBILE OR PART-TIME REPAIRS THE USER WOULD BE ON ALL THE REPAIRS.

CONSIDERATION, COMMENTS REGARDING THE SHIELDING OF SHIELDING IS NOT THE USER'S RESPONSIBILITY. THE COMMENTS REGARDING THE SHIELDING IS NOT THE USER'S RESPONSIBILITY.

ALL THE COMMENTS TO BE COMPLETED ON THE FORMS TO THE COMPLETION OF THE COMMENTS.

REFER BELOW FOR MORE AMENITIES



# PRELIMINARY



DATE	FEB 91	PROJECT #	5040	SOURCE	E/TD
SCALE	1:1000	RS			
CREATOR	DT	DWG #		REF #	
CHECKED	<i>20. Sygden</i>				
APPROVED	DT	ESK-2	P2		



KEY PLAN

THE PROPERTY IS THE SAME AS THE CONCEPT DESIGN AND ANY CHANGES TO THE DESIGN ARE THE RESULT OF THE CLIENT'S REQUIREMENTS. THE CLIENT'S REQUIREMENTS ARE THE BASIS FOR THE DESIGN AND ANY CHANGES TO THE DESIGN ARE THE RESULT OF THE CLIENT'S REQUIREMENTS. THE CLIENT'S REQUIREMENTS ARE THE BASIS FOR THE DESIGN AND ANY CHANGES TO THE DESIGN ARE THE RESULT OF THE CLIENT'S REQUIREMENTS.

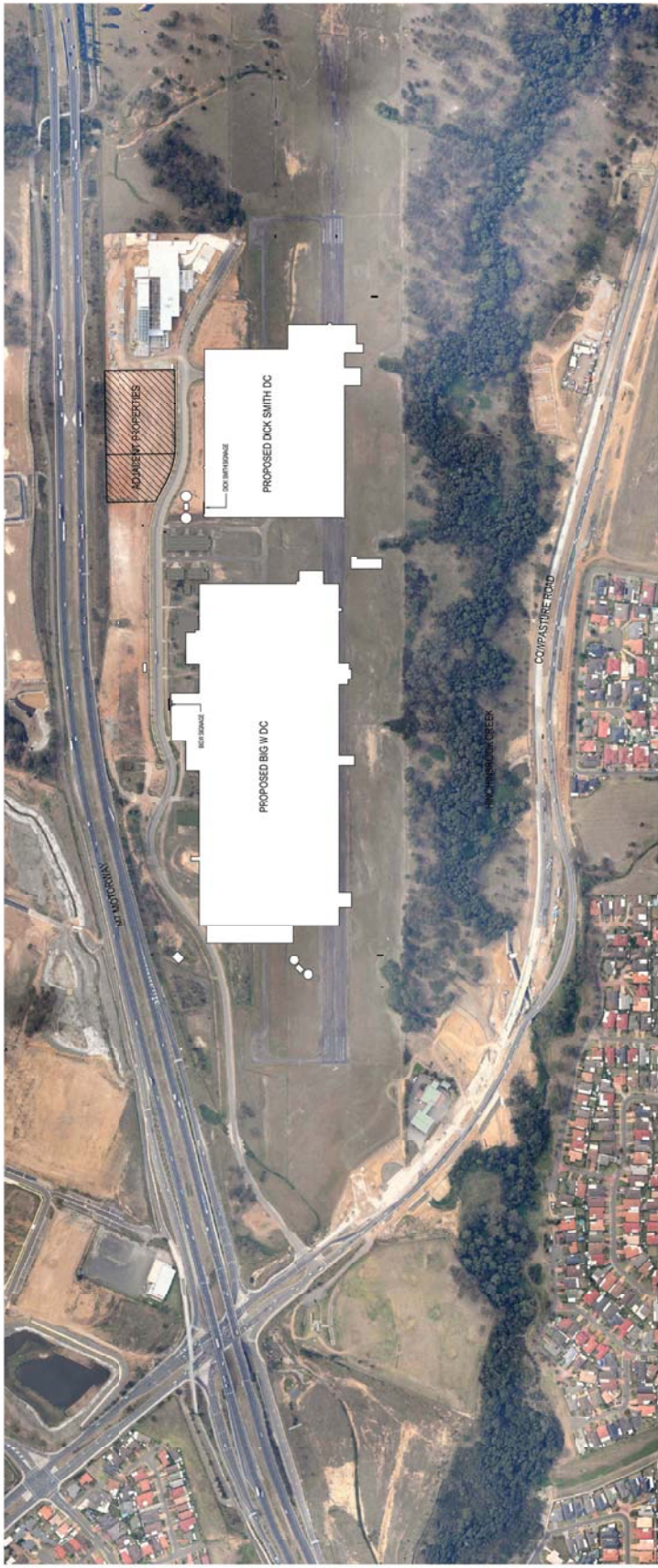
THE CLIENT'S REQUIREMENTS ARE THE BASIS FOR THE DESIGN AND ANY CHANGES TO THE DESIGN ARE THE RESULT OF THE CLIENT'S REQUIREMENTS. THE CLIENT'S REQUIREMENTS ARE THE BASIS FOR THE DESIGN AND ANY CHANGES TO THE DESIGN ARE THE RESULT OF THE CLIENT'S REQUIREMENTS.

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BUILDING OVERLAP ON  
SITE MAP

DATE	05/11/11	DESIGNED BY	ARSK
SCALE	1:2000	BY	0930
DRAWN BY	SK	CHECKED	SK
APPROVED	SK 09	DATE	1/1

CLIENT  
BIG W DC  
HICKS CREEK  
NSW

ARCHITECT  
MNTA ARCHITECTS  
Level 11, 44 Market Street  
Sydney NSW 2000  
Tel: (02) 9250 1234  
Fax: (02) 9250 1235  
Email: info@mnta.com.au

ENGINEER  
BIG W DC  
HICKS CREEK  
NSW

LANDSCAPE ARCHITECT  
BIG W DC  
HICKS CREEK  
NSW

PLANNING  
BIG W DC  
HICKS CREEK  
NSW

ENVIRONMENTAL CONSULTANT  
BIG W DC  
HICKS CREEK  
NSW

STRUCTURAL ENGINEER  
BIG W DC  
HICKS CREEK  
NSW

ELECTRICAL ENGINEER  
BIG W DC  
HICKS CREEK  
NSW

MECHANICAL ENGINEER  
BIG W DC  
HICKS CREEK  
NSW

WATER ENGINEER  
BIG W DC  
HICKS CREEK  
NSW

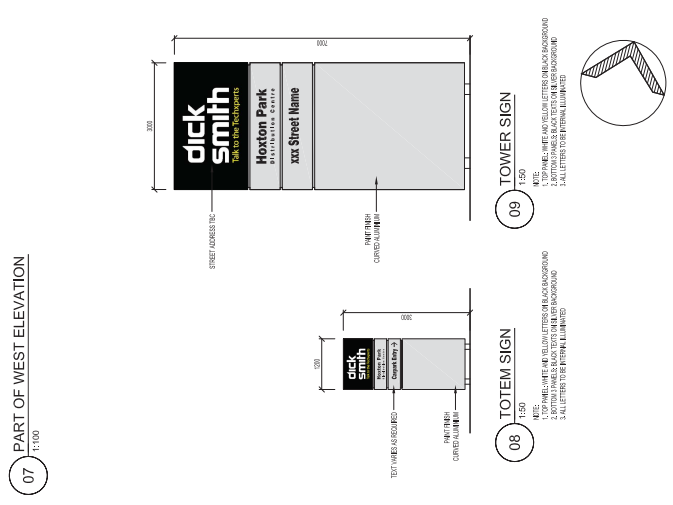
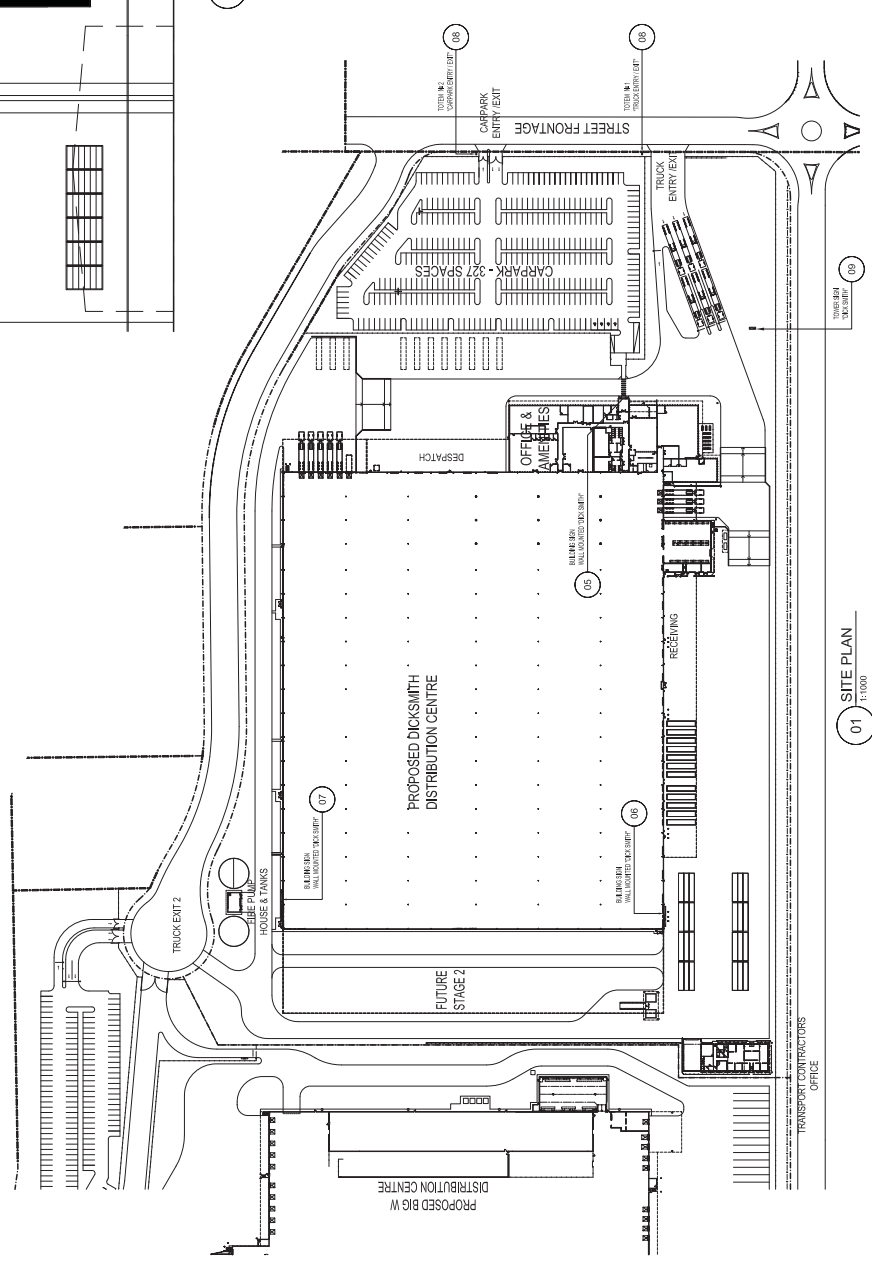
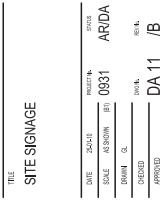
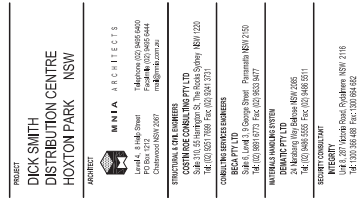
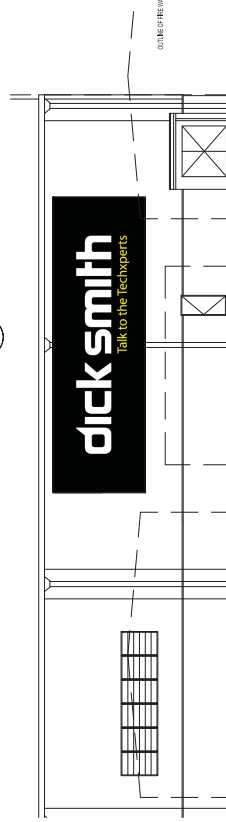
SOIL ENGINEER  
BIG W DC  
HICKS CREEK  
NSW

VEGETATION ENGINEER  
BIG W DC  
HICKS CREEK  
NSW

HERITAGE CONSULTANT  
BIG W DC  
HICKS CREEK  
NSW

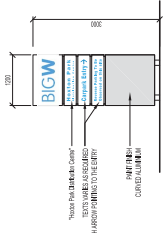
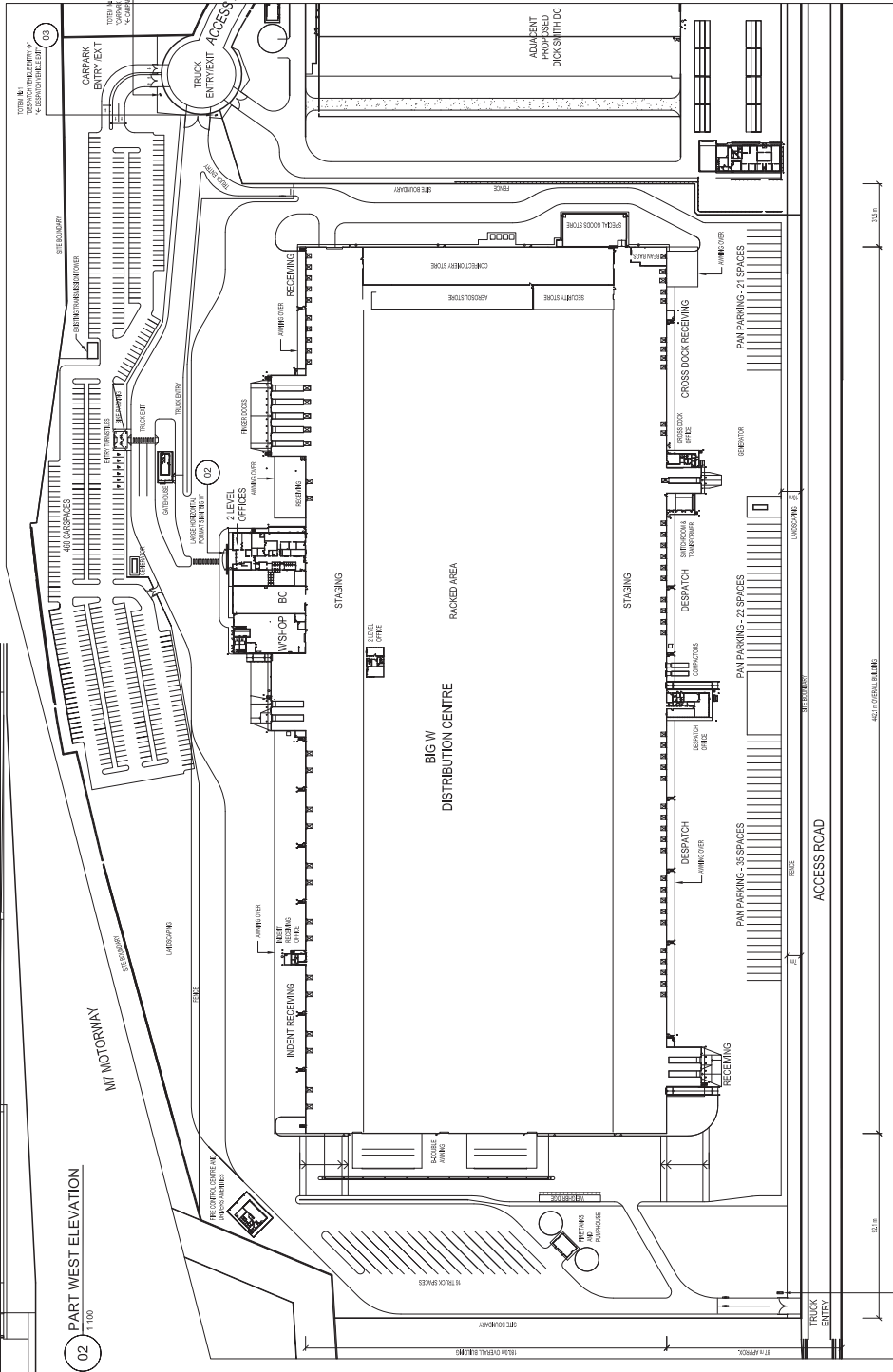
ARCHITECTURAL PHOTOGRAPHER  
BIG W DC  
HICKS CREEK  
NSW

CONTRACTOR  
BIG W DC  
HICKS CREEK  
NSW

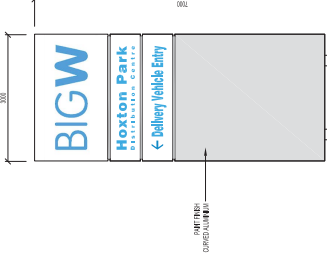




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03 TOTEM SIGN



04 TOWER SIGN



DATE	25-01-10	PROJECT No.	0930	SPECIES	AR/DA
SCALE	AS SHOWN (B1)	DWG No.	DA 04	REV No.	/B
DRAWN	GL	CHECKED			
		APPROVED			

## SITE SIGNAGE

PLAN  
01  
1:1000



